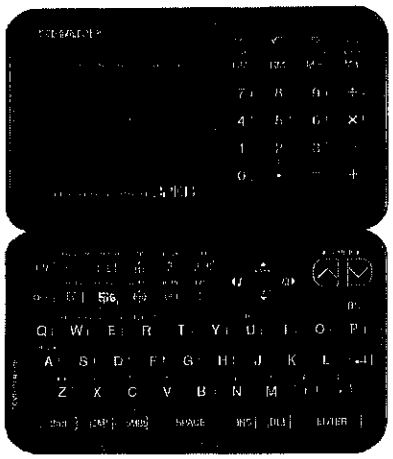
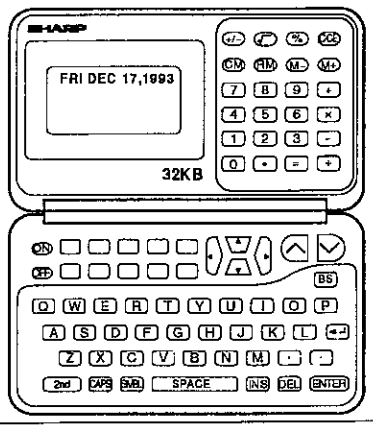
SHARP SERVICE MANUAL



CODE: 00ZZQ3250SM/E

MODEL ZQ-3000, ZQ-3200 ZQ-3050, ZQ-3250

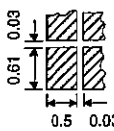
KEY LAYOUT



KEY SYSTEM: Rubber key

DISPLAY SECTION

STANDARD FUNCTION	10 digits 1 M
ELEMENT: FEM LCD	PARTS NAME: LF7776Q
NUMERAL: 16 digits (4 lines)	



95 x 32 dot matrix liquid crystal display 16 columns x 4 lines (with 6 x 8 dot characters)

LSI

CPU: LI35061F (209pin-FILM)

SRAM:
- ZQ-3000/3050 ATT7C256BFX1
- ZQ-3200/3250 ATT7C256BFX2

POWER SUPPLY	AC: X	DC: O

Main power supply:
6 VDC lithium batteries (CR2032 x 2)
Memory backup power:
3 VDC lithium battery (CR2032 x 1)

AC ADAPTOR	
RECHARGEABLE BATTERY	
POWER CONSUMPTION	0.02 W
AUTO POWER OFF TIME	Approx. 7 minutes
MEMORY PROTECT	Yes

DIMENSIONS(mm)

Open: 138(W) x 160(D) x 9(H) mm.
Closed: 138(W) x 80(D) x 17(H) mm.

Weight: Approx. 150g (including batteries)

CALCULATIONS

addition, subtraction, multiplication, division; constant, square root, percent, memory calculation, etc.

Accessories

Lithium batteries (CR2032 x 3)
Operation manual

Electronic notebook section

TEL mode	Entry and recall of names, phone numbers, and addresses
SCHEDULE mode	Entry and recall of dates, appointment times, and details of appointments Automatic day-forward function, schedule alarm function
ANNIVERSARY mode	Entry and recall of dates and details of anniversaries Anniversary notice function
CALENDAR mode	Display of calendars from January 1901 to December 2099 Schedule mark function distinguishing between morning and afternoon appointments Anniversary mark function
MEMO mode	Entry and recall of everyday memos
TO DO mode	Entry and recall of items, priority assignment
EXPENSE mode	Entry and recall of expense date, amount, payment type and description
Memory capacity	ZQ-3000/3050 32 Kbytes (User area: Approx. 30 Kbytes) SCHEDULE mode capacity: Approx. 500 entries TEL mode capacity: Approx. 810 entries MEMO mode capacity: Approx. 220 entries ZQ-3200/3250 64 Kbytes (User area: Approx. 62 Kbytes) SCHEDULE mode capacity: Approx. 1040 entries TEL mode capacity: Approx. 1680 entries MEMO mode capacity: Approx. 460 entries • The approximate entry capacities above assume the following average entry sizes when all memory is used by a single mode. SCHEDULE Description 32 characters/entry TEL Name 16 characters/entry Number 12 characters/entry MEMO 128 characters/entry
Maximum character string length per entry	512 characters
Other features	Secret function, data transfer, index display

Clock

Crystal oscillation frequency	32,768 Hz
Clock precision	Average variance ±45 seconds per month (at 25°C/77°F)
Content of displays	year, month, day, day of week, hours, minutes, A.M./P.M.
Time system	12-hour and 24-hour clock

Operating time

- Approx. 500 hours
  When data is continuously displayed at an ambient temperature of 20°C (68°F).
- Approx. 380 hours
  When data is searched for 5 minutes per hour, and the data is displayed for 55 minutes per hour, at an ambient temperature of 20°C (68°F).
- When off, and the clock is running, operating time: Approx. 1 year
- Memory backup battery life:
  Approx. 5 years (if operating batteries are replaced promptly when exhausted)
  Approx. 3 years (if operating batteries are exhausted or not installed)

SHARP CORPORATION

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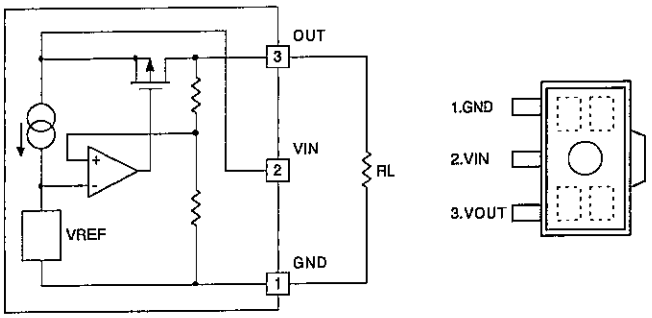
The contents are subject to change without notice.

1. CPU (LI35061F) terminal description

Signal name	I/O	Terminal name	Signal name	I/O	Terminal name	Signal name	I/O	Terminal name	Signal name	I/O	Terminal name
TEST2	I	Test input	AD4	O	Address output	S15	O	Segment output	S66	O	Segment output
TEST	I	Test input	AD3	O	Address output	S16	O	Segment output	S67	O	Segment output
STB0	O	Strobe output	AD2	O	Address output	S17	O	Segment output	S68	O	Segment output
STB1	O	Strobe output	AD1	O	Address output	S18	O	Segment output	S69	O	Segment output
STB2	O	Strobe output	EO1	O	Output port	S19	O	Segment output	S70	O	Segment output
STB3	O	Strobe output	BZ1	O	Buzzer output	S20	O	Segment output	S71	O	Segment output
STB4	O	Strobe output	EO2	O	Output port	S21	O	Segment output	S72	O	Segment output
STB5	O	Strobe output	KI8	I	Key input	S22	O	Segment output	S73	O	Segment output
STB6	O	Strobe output	KI7	I	Input port	S23	O	Segment output	S74	O	Segment output
STB7	O	Strobe output	GND		Power source	S24	O	Segment output	S75	O	Segment output
STB8	O	Strobe output	RESET	I	Reset input	S25	O	Segment output	S76	O	Segment output
STB9	O	Strobe output	XO	O	Crystal oscillation output	S26	O	Segment output	S77	O	Segment output
STB10	O	Strobe output	XI	O	Crystal oscillation input	S27	O	Segment output	S78	O	Segment output
STB11	O	Strobe output	GND		Power source	S28	O	Segment output	S79	O	Segment output
STB12	O	Strobe output	VD		Crystal oscillation power source	S29	O	Segment output	S80	O	Segment output
STB13	O	Strobe output	VCC		Power source	S30	O	Segment output	S81	O	Segment output
STB14	O	Strobe output	VHH		LCD drive power source	S31	O	Segment output	S82	O	Segment output
STB15	O	Strobe output	VH		LCD drive power source	S32	O	Segment output	S83	O	Segment output
KI6	I	Key input	VA		LCD drive power source	S33	O	Segment output	S84	O	Segment output
KI5	I	Key input	VM		LCD drive power source	S34	O	Segment output	S85	O	Segment output
KI4	I	Key input	VB		LCD drive power source	S35	O	Segment output	S86	O	Segment output
KI3	I	Key input	H16	O	Common output	S36	O	Segment output	S87	O	Segment output
KI2	I	Key input	H15	O	Common output	S37	O	Segment output	S88	O	Segment output
KI1	I	Key input	H14	O	Common output	S38	O	Segment output	S89	O	Segment output
DI08	I/O	Data I/O	H13	O	Common output	S39	O	Segment output	S90	O	Segment output
DI07	I/O	Data I/O	H12	O	Common output	S40	O	Segment output	S91	O	Segment output
DI06	I/O	Data I/O	H11	O	Common output	S41	O	Segment output	S92	O	Segment output
DI05	I/O	Data I/O	H10	O	Common output	S42	O	Segment output	S93	O	Segment output
DI04	I/O	Data I/O	H9	O	Common output	S43	O	Segment output	S94	O	Segment output
DI03	I/O	Data I/O	H8	O	Common output	S44	O	Segment output	S95	O	Segment output
DI02	I/O	Data I/O	H7	O	Common output	S45	O	Segment output	S96	O	Segment output
DI01	I/O	Data I/O	H6	O	Common output	S46	O	Segment output	H17	O	Common output
CE3	O	Chip enable output	H5	O	Common output	S47	O	Segment output	H18	O	Common output
CE2	O	Chip enable output	H4	O	Common output	S48	O	Segment output	H19	O	Common output
CE1	O	Chip enable output	H3	O	Common output	S49	O	Segment output	H20	O	Common output
R/W	O	Read/Write output	H2	O	Common output	S50	O	Segment output	H21	O	Common output
BA04	O	Bank address output	H1	O	Common output	S51	O	Segment output	H22	O	Common output
BA03	O	Bank address output	S1	O	Segment output	S52	O	Segment output	H23	O	Common output
BA02	O	Bank address output	S2	O	Segment output	S53	O	Segment output	H24	O	Common output
BA01	O	Bank address output	S3	O	Segment output	S54	O	Segment output	H25	O	Common output
AD15	O	Address output	S4	O	Segment output	S55	O	Segment output	H26	O	Common output
AD14	O	Address output	S5	O	Segment output	S56	O	Segment output	H27	O	Common output
AD13	O	Address output	S6	O	Segment output	S57	O	Segment output	H28	O	Common output
AD12	O	Address output	S7	O	Segment output	S58	O	Segment output	H29	O	Common output
AD11	O	Address output	S8	O	Segment output	S59	O	Segment output	H30	O	Common output
AD10	O	Address output	S9	O	Segment output	S60	O	Segment output	H31	O	Common output
AD9	O	Address output	S10	O	Segment output	S61	O	Segment output	H32	O	Common output
AD8	O	Address output	S11	O	Segment output	S62	O	Segment output	S97	O	Segment output
AD7	O	Address output	S12	O	Segment output	S63	O	Segment output	S98	O	Segment output
AD6	O	Address output	S13	O	Segment output	S64	O	Segment output			
AD5	O	Address output	S14	O	Segment output	S65	O	Segment output			

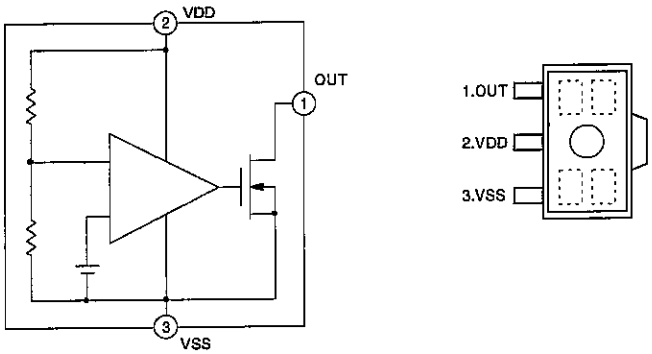
2. Regulator

(Internal block diagram)



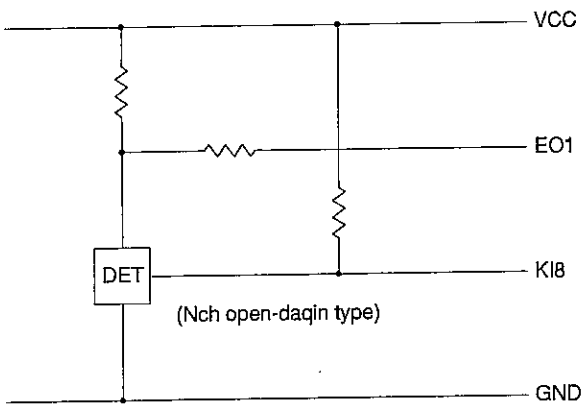
3. Detector

(Internal block diagram)



4. Low voltage detection method

- In this model, a warning is given only to the main battery exhaustion, not given to the backup battery exhaustion.
  The main battery exhaustion is detected in the circuit shown below:



1) Caution level (detection voltage: About 4.8 ~ 5.3V)

- When the caution level is detected while displaying, the low battery symbol (BATT) is lighted.
- When the caution level is detected on supplying the power to the set or on pressing the reset switch, the battery replacement indication (PLEASE REPLACE THE OPERATING BATTERY !) is displayed for about 4 sec.
- When the caution level is detected while sounding the alarm or key input sound, the alarm sound or key input sound is stopped.

2) Fatal level (Detection voltage: About 4.4 ~ 4.8V)

- When the fatal level is detected while displaying, the whole system is turned off.
- When the fatal level is detected, on supplying the power to the set or on pressing the reset switch, the whole system is turned off.
- When the fatal level is detected while sounding the alarm sound or key input sound, the alarm sound or key input sound is immediately stopped. After 100ms, the voltage is restored and the next process is performed.
- When the fatal level is detected while the power is off, pressing the ON key will not supply power to the set. The reset key is also disabled. (Until the battery is replaced.)

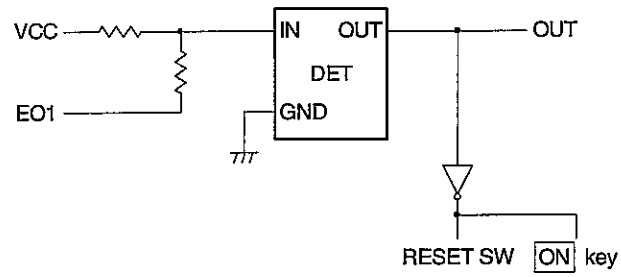
[Note] Since low voltage detection is not performed for the memory protection battery, please note the battery replacement label and replace when necessary.

5. Alphabet: Caps/Low

- Caps/Low of alphabet can be selected by pressing the CAPS key.
- When the power is supplied by pressing the ON key, Caps is selected. (Caps symbol is lighted.)

● Circuit

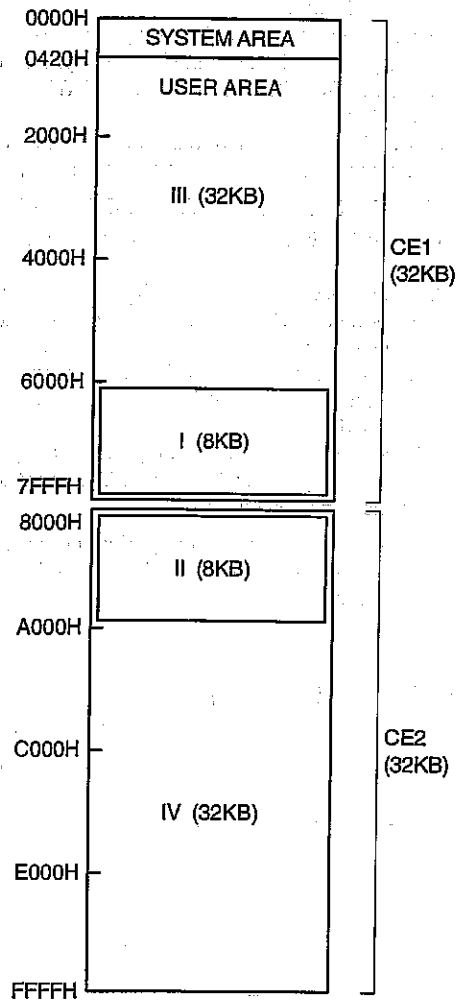
- This circuit has no hysteresis characteristics.



● Software

1. Caution level is detected every 0.5sec. (EO1 = GND)
2. In normal cases, only the fatal level is detected. (EO1 = Vcc)
3. Even when the system is off, the fatal level is detected.

6. Memory map



- PLA is selected so that CE1 is outputted to the former half space of 32KB and CE2 is outputted to the latter half of 32KB. (CE1, CE2: The chip enable output for addressing the external memory)
- Either when one 8KB RAM is used or when two 8KB RAM's are used, the former half RAM address is assigned to 6000H level. This allows continuous assignment of addresses when two RAM's are used.

	RAM capacity as a set	Memory type (D7H)
	8KB (I only)	2
	16KB (I + II)	3
ZQ-3000/3050 →	32KB (III only)	4
ZQ-3200/3250 →	64KB (III + IV)	5
	(In case of error)	0

7. Conduction test

Ⓐ = Backup battery ⊖ terminal
Ⓑ = Electrostatic sheet (Plain serface)

- Check conduction between Ⓐ and Ⓑ.

Max. 10 Ω

8. Current check

(VCC = 6.0V)

1. Press the OFF key.
2. Measure the current value. (After 1 sec.)
   When OFF: 11.3μA or less
3. Press the ON key.
4. Measure the current value.
   When ON: 365μA or less

9. Note for Battery replacement

Replacing batteries

Batteries used in the Organizer:

Type	Model	Qty.	Use
Lithium battery	CR2032	2	Unit operation
Lithium battery	CR2032	1	Memory backup

The standard built-in clock is powered by the operating batteries.

Precautions when replacing the batteries.

Before replacing the battery, be sure to press [OFF] to turn the power off.
Do not replace the memory backup battery when the operating batteries are depleted. When the operating batteries become weak and you turn the power on, " BATT " will be displayed and the following display will appear temporarily:

Please replace the operating batteries!

BATT

If the batteries become weaker (the alarm or the key beep does not sound), the power may go off during operation or the Organizer may fail to turn on.
The memory contents will still be retained by the memory backup battery.
Replace the operating batteries to avoid loss or alteration of data.
Before removing the batteries for replacement, record important information on paper.

10. Using the data transfer function

This Organizer can transmit data to and receive data from the following products.

1. Data transfer between ZQ-3000 series Organizers (using option CE-200L or CE-300L).
2. Data transfer with a ZQ-5000 or IQ series Organizer (using option CE-200L or CE-300L).
3. Data transfer with an EL series Organizer (including Auto Dialer) that has data transfer capability (using option CE-220T).

Before establishing communication between products, turn the products off and connect the cable.

Notes:
- To interrupt data transfer, press [C·CE] .
- If a connector is disconnected, or a similar problem occurs during data transfer, the message "I/O DEVICE ERROR" will appear.
- After data transfer, the data on the transmitter is preserved.

10-1. Transferring data between ZQ-3000 series Organizers

Telephone directory data, schedule data, and memo data can be transferred. Data can be transferred and verified by mode (all items in the SCHEDULE mode, MEMO mode, or a telephone directory – TEL1, TEL2, TEL3) or by data item. In addition, data can be backed up using Organizers of the same type.

Transferring data by mode and by data item

Schedule data are transferred by mode. During mode transfer, data previously stored in the specified mode of the receiver are deleted. Proceed with a caution.

Note: When mode transfer is carried out in the telephone directory mode, all listings in the directory will be transferred. (In this case, the directory name is transferred at the same time.)

1. Select the mode on the transmitter and receiver.

   [SCHEDULE] [C·CE] (Transmitter)

   [SCHEDULE] (Receiver)

2. Select the data transfer function on the receiver.

   [2nd] [OPTION]

   ```
   UNIT TO UNIT
   1 SEND
   2 RECEIVE
   3 VERIFY
   ```

3. Select the receiver in the receive mode.

   2

   ```
   UNIT TO UNIT

   RECEIVING
   MODE
   ```

4. Select the data transfer function on the transmitter.

   [2nd] [OPTION]

   ```
   UNIT TO UNIT
   1 SEND
   2 RECEIVE
   3 VERIFY
   ```

   Note: When transferring by data item, display the desired data and press [2nd] [OPTION] .

5. Perform data transfer.

   1

Notes:
- If the mode of the transmitter and the mode of the receiver are not the same, data transfer is not established. The message "DATA ERROR" is displayed.
  When telephone directory data are transferred, directories on the transmitter and receiver can be different. However, the contents received by the receiver will be stored in the open directory. For example, if data transfer is established between file TEL1 in the transmitter and file TEL3 in the receiver, then the contents of TEL1 will be sent to and stored in TEL3.
- Turn off the secret function on both the transmitter and the receiver before mode transfer.
- If the amount of memory available on the receiver at the time of transfer is insufficient, data transfer is not possible. The message "MEMORY FULL" appears. Delete any unnecessary data, verify whether the available memory is sufficient, and repeat the data transfer procedure.

Transferring backup data

All the contents of the Organizer are transferred. During backup data transfer, data stored on the receiver are deleted. Proceed with caution.
(Backup data transfer is only possible between identical products.)

1. Select the data transfer function on the receiver and set it in the receive mode for backup data transfer.

   [2nd] [OPTION]

   [2nd] 2

   ```
   UNIT TO UNIT
   BACKUP
   RECEIVING
   MODE
   ```

2. Select the data transfer function on the transmitter and perform backup data transfer.

   [2nd] [OPTION] [2nd] 1 Y

Verifying data

It is possible to verify data by mode or by data item. If any discrepancies are found, the message "VERIFY ERROR" is displayed.
Verify data in the SCHEDULE mode.

1. Select the mode on the transmitter and the receiver.

   [SCHEDULE] [C·CE] (Transmitter)

   [SCHEDULE] (Receiver)

2. Set the receiver in the verify mode.

   [2nd] [OPTION] 3

   ```
   UNIT TO UNIT

   –VERIFYING–
   ```

3. Select the data transfer function on the transmitter.

   [2nd] [OPTION]

   Note: To verify one data item, display the data item to be verified and press [2nd] [OPTION] .

4. Perform verification.

   1

10-2. Transferring data with a ZQ-5000 or IQ series Organizer

Telephone directory data, schedule data, and memo data can be transferred. Data can be transferred and verified by mode and by data item.

Note: When mode transfer is carried out in the telephone direcotry mode, all listings in the directory will be transferred. (In this case, the directory name is transferred at the same time.)

Transferring data by mode and by data item

Transfer the "ABC BANK" memo data stored in the Organizer.

1. Recall the data in the transmitter to be transferred.

   [MEMO] [v]

   Note: To perform mode transfer, select the mode by pressing the mode key, and then press [C·CE]. It is not necessary to display the data.

2. Select the data transfer function on the receiver, and set the receiver in the receive mode.

3. Select the data transfer function on the transmitter and perform data transfer.

   [2nd] [OPTION] 1

Note: Follow the same steps to transfer data from a ZQ-5000 or IQ series Organizer.

Verification

Follow the steps explained in "Transferring data between ZQ-3000 series Organizers" above.

10-3. Transferring data with an EL series Organizer (including Auto Dialer)

Telephone directory data and schedule data can be transferred. (For the Auto Dialer only the telephone direcory data can be transferred.) Data can be transferred by mode and by data item.
When transferring data with an EL series Organizer, the following restrictions apply:

- When transferring data to an EL series Organizer:
  Transferred data are added to the data previously stored.
  Data are transferred in the same mode and directory.
  If the transferred data item exceeds the maximum number of characters that can be entered into the EL series Organizer as one data item, excess characters are deleted.
  Characters and symbols that cannot be displayed on the EL series Organizer are replaced by spaces. If all the columns that can be displayed are replaced by spaces, the corresponding data item is not stored.
  All received letters are converted to capital letters.
  If the secret function is turned on in the Organizer, only non-secret data are transferred.
- When transferring data from an EL series Organizer:
  The received data are added to the data previously stored.
  When receiving non-English characters, all characters are converted to small letters.
  If the secret function is turned on in the EL series Organizer, only non-secret data are transferred.

Transferring data to an EL series Organizer

Transfer all TEL1 data in the Organizer to TEL1 in the EL Series Organizer.

1. Set the receiver in the receive mode.
2. Select the mode on the transmitter.

   [TEL]

   Since telephone directory data is being transferred, select the file.
3. Select the data transfer function on the transmitter.

   [2nd] [OPTION]

   Note: To transfer one data item, display the data item to be transferred and press [2nd] [OPTION].
4. Perform data transfer.

   1

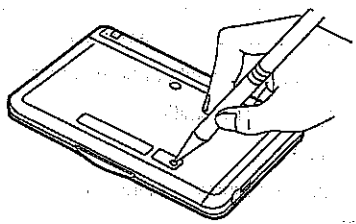
- If the amount of memory available in the receiver at the time of data transfer is insufficient; an error message appears. Delete any unnecessary data, verify that there is sufficient memory available, and repeat the procedure.

Transferring data from an EL series Organizer

1. Select the mode on the receiver.
2. Select the data transfer function on the receiver, and set the receiver in the receive mode.
3. Perform data transfer from thet transmitter.

11. When trouble occurs

An impact or a strong external electrical field may leave none of the keys operational. Press the RESET switch on the back of the Organizer.



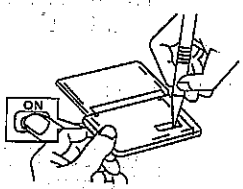
The impact or external electrical field may erase some or all of the Organizer's memory.
Press the RESET switch with the tip of a ball-point pen or similar object, but not anything breakable (like a pencil point or a needle).

All RESET operation

If a problem occurs after replacing the batteries, or if the Organizer does not function properly even after the above RESET operation, perform the following:

1. While holding [ON], press the RESET switch on the back. Release the RESET switch and then release [ON].

   The following display will appear.



DATA
ALL CLEAR
OK (Y/N) ?

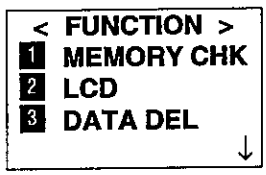
2. Press [N].
   Returns to the initial display.

Caution: Do not press [Y] in step 2. Pressing [Y] will delete all data and reset the clock.

12. Contrast adjustment

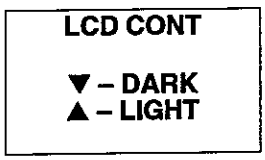
Adjust the display contrast to make the display easier to read.

1. Press [2nd] [FUNCTION].



2. Select "2 LCD CONT".

   2



3. Press [▲] or [▼] to darken or lighten the display as required. The amount of contrast will change continuously when either [▲] or [▼] is held.
4. After adjusting the contrast, press [C·CE].

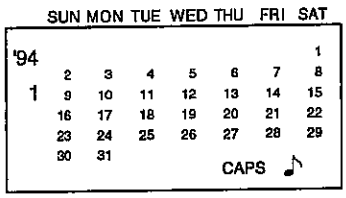
13. Turning the "beep" on and off

While "♪" is displayed, a "beep" will sound when a key is pressed. To turn the "beep" on and off, press [2nd] [♪]. The "beep" will not sound after "♪" goes off. To turn the "beep" back on, repeat the process.

14. Difference between the ZQ-3000 series

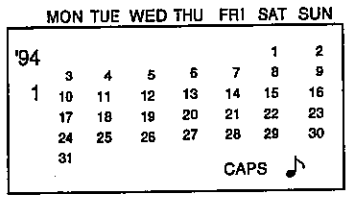
- Display film calendar

  Ⓐ type (The left end is Sunday.)



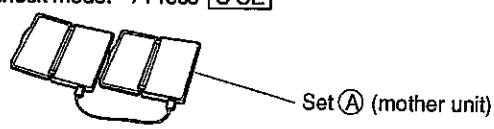
ZQ-3000,3200

  Ⓑ type (The left end is Monday.)

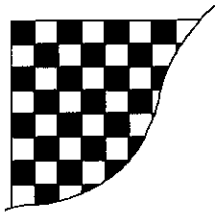


ZQ-3050,3250

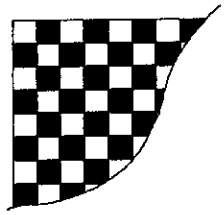
15. Diag function check

	Item	Operation	Display	Check content
1	Initial setting	While pressing [ON] key, press RESET switch.	DATA ALL CLEAR OK (Y/N)?	
		Press [Y] key.	DATA ALL CLEARED!	
			⇩	
			* TEL1 * NAME?	
2	Initializing diag function	When pressing [ON] and [D] keys, press RESET switch.	[1] CHK [2] AGING [3] LB	
3	Function selection and display check	Press [1]. Press [ENTER]. Press [ENTER]. Press [ENTER].	Pattern A Pattern B Pattern C Pattern D	Check the display for defects, blurs, leaks, and other abnormalities.
4	Key check	Press [ENTER]. (Note 1)	KEY CHK = = _ =	
5	Key input check	Press all the keys (79 keys) except for [ENTER] key.	KEY CHK	
6	Key check end	Press [ENTER] key.	KEY CHK OK	Must be "OK." (Note 2)
7	RAM check (Automatic check)	Press [ENTER] key. Check time: ZQ-3200/3250 → About 30sec ZQ-3000/3050 → About 17sec	KEY CHK OK RAM 32K OK	Must be "OK." (Note 3) ZQ-3200, 3250 → 64K ZQ-3000, 3050 → 32K
8	Communication check	Connect the set Ⓐ (mother unit). Set the mother unit to the check mode. → Press [C·CE]  Set Ⓐ (mother unit)	(Mother unit display) 4PIN CHK	
	(Automatic check)	Press [ENTER] key.	KEY CHK OK RAM 32K OK 4 PIN CHK OK	Must be "OK."
9	Diag end	Remove the set Ⓐ. (Disconnect the 4-pin connector.) Press [ENTER] key.	DATA ALL CLEARED ⇩ * TEL1 * NAME?	
11	Contrast check Function selection	Press [2nd] and [FUNCTION] keys. Enter [2].	<FUNCTION> [1] MEMORY CHK [2] LCD CONT [3] DATA DEL	
		Keep pressing [▲] key for about 3 sec. Keep pressing [▼] key for about 3 sec.	LCDCONT ▲-DARK ▼-LIGHT	
10	Calendar check (Perform prior to contrast check.)	Press [CALENDAR] key.	Pattern E	Check that January 1, 94 is "SAT."

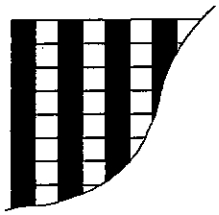
Pattern A



Pattern B

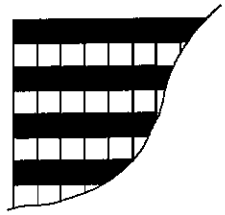


Pattern C

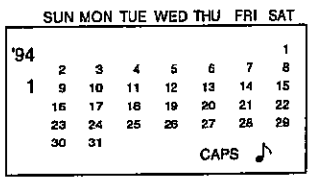


(All symbols are lighted.)

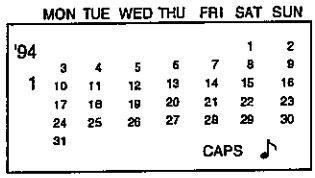
Pattern D



Pattern E



ZQ-3000,3200



ZQ-3050,3250

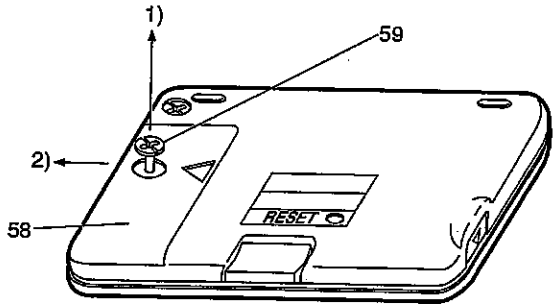
Note 1: When pressed 2 times or more, "KEY CHK NG" is displayed and operation is stopped.

Note 2: When check program is stopped by mis-operation, press [2nd] and [C/CE] keys to reset to state "2."

Note 3: When check program is stopped by mis-operation, press [2nd] and [C/CE] keys to reset to state "2."

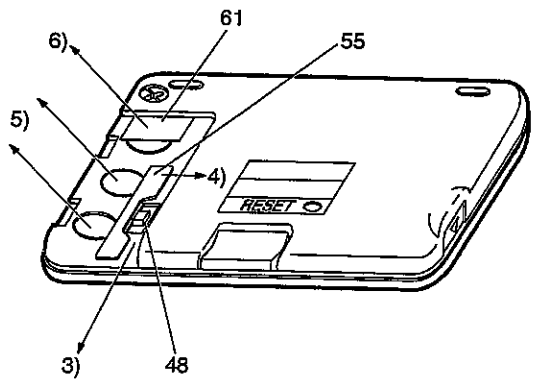
16. Note for servicing

■ Remove the battery cover.

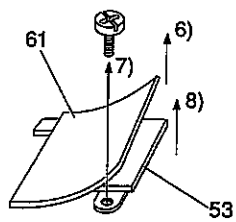


1) Loosen screw 59. (0JK0D000004M/)
2) Remove battery cover 58.
   (Note) Screw 59 is so constructed as not to be removed for prevention against missing.

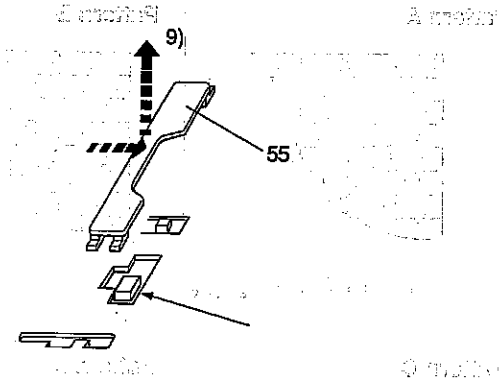
■ Remove the battery.



3) Slide battery replacement switch 48 to "REPLACEMENT" side.
4) Slide battery protect B 55.
5) Remove the battery. (MAIN side)

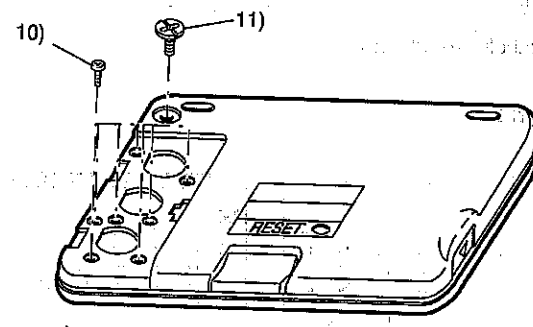


6) Remove caution label 61.
7) Remove the screw. (0JK0D000100M/)
8) Remove battery protect A 53, and remove the battery. (Backup side)

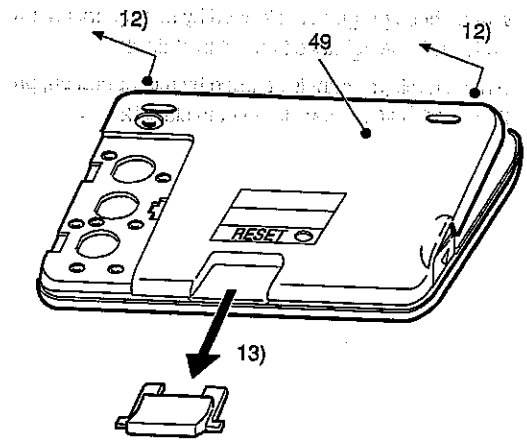


9) Remove battery protect B 55.
   (Note) There is a screw beneath battery protect B. When removing the keyboard lower cabinet, battery protect B must be removed.

■ Remove the keyboard lower cabinet.

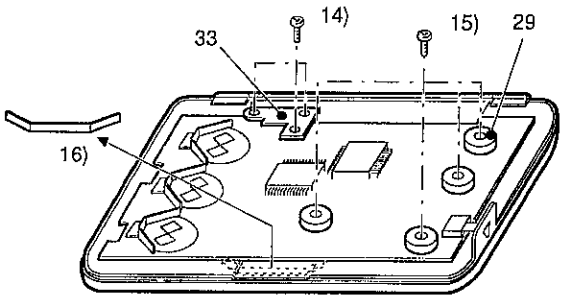


10) Remove the screws. (7 pcs.) (0JK0D000100M/)
11) Remove the screw. (1 pc.) (7 pcs.) (0JK0D000100M/)



12) Remove the keyboard lower cabinet 49 from the hinge side.
13) Remove push knob 50.

■ Remove the PCB.



14) Remove the screw and remove pressure plate 33. (0JK0D000101M/)

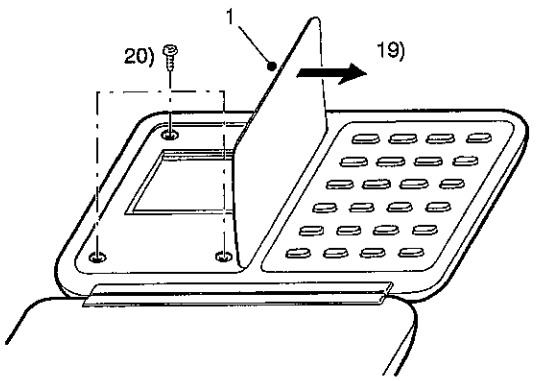
15) Remove the screw and remove collar 20. (0JK0D000101M/)

16) Remove the knob conductor.

17) Remove the PCB.

18) Remove electrolytic sheet 27 under the PCB and remove rubber key B 29.

■ Remove the lower cabinet in the LCD side.

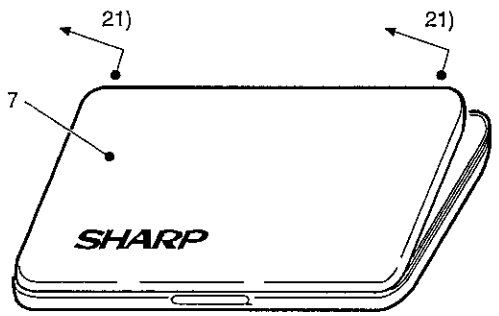


19) Remove DIS overlay 1.

(Note) The decoration panel is attached with duplex tape.

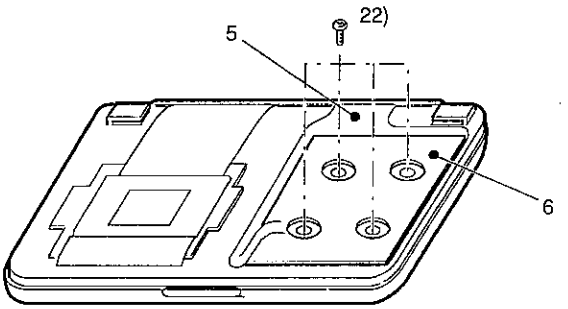
20) Remove screws. (3 pcs.) (0JK0D000100M/)

(Note) There is no screw beneath the 10 key panel.



21) Remove DIS lower cabinet 7 from the hinge side.

■ Remove the key sheet.

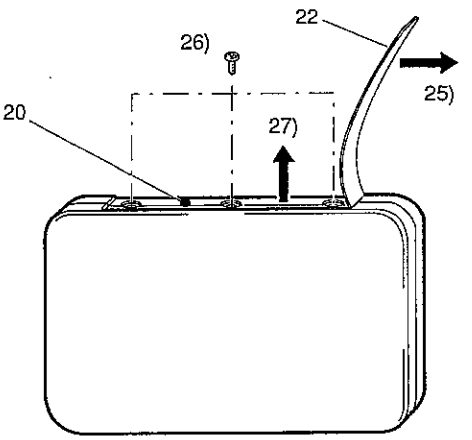


22) Remove the screws. (4 pcs.) (0JK0D000100M/)

23) Remove ALM sheet 6.

24) Remove key sheet 5.

■ Remove the hinge.



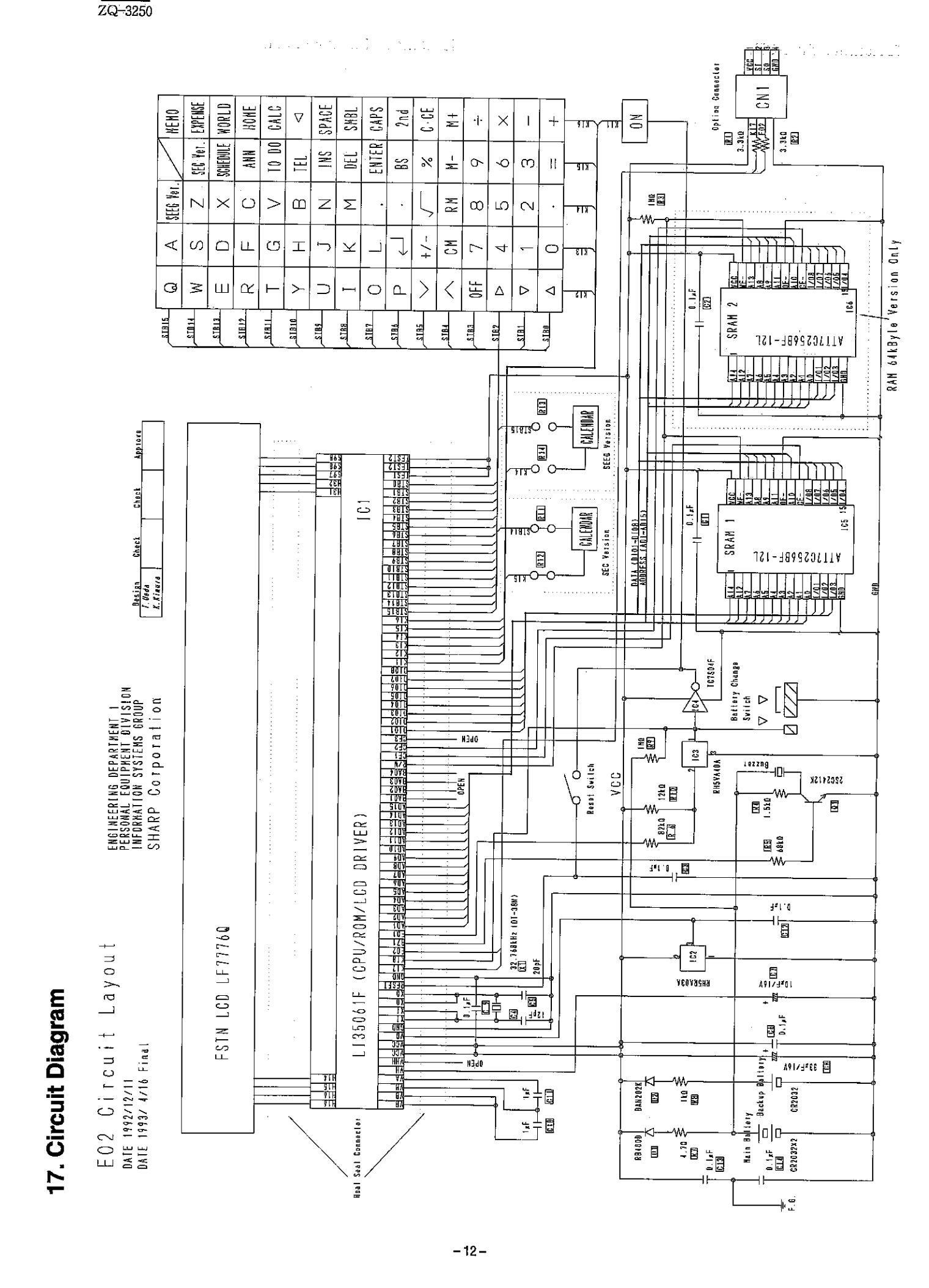
25) Remove hinge overlay 22.

(Note) The hinge overlay is attached with duplex tape.

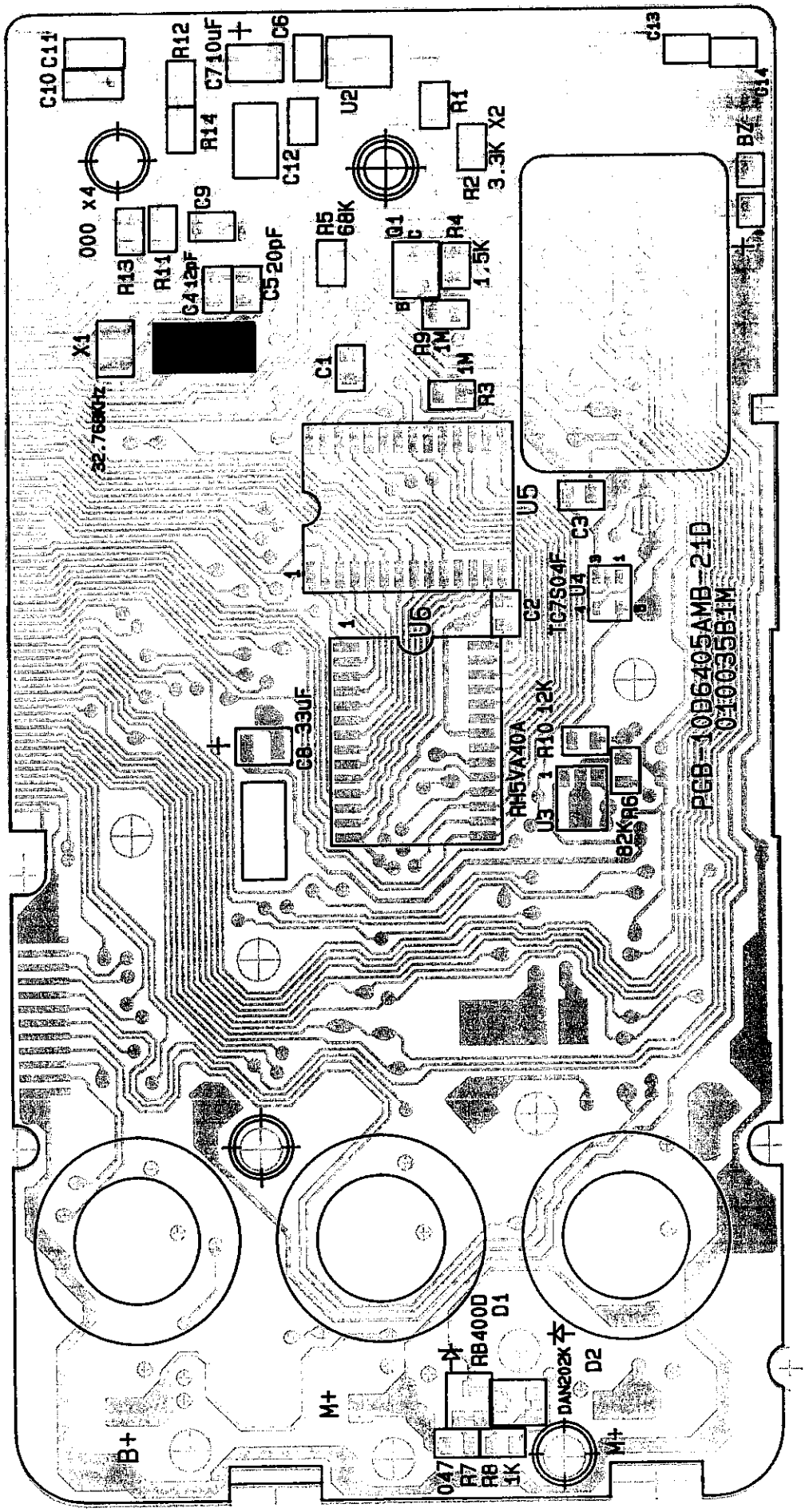
26) Remove the screws. (3 pcs.) (0JK0D000103M/)

27) Remove hinge B.

17. Circuit Diagram



18. PWB parts signals arrangement

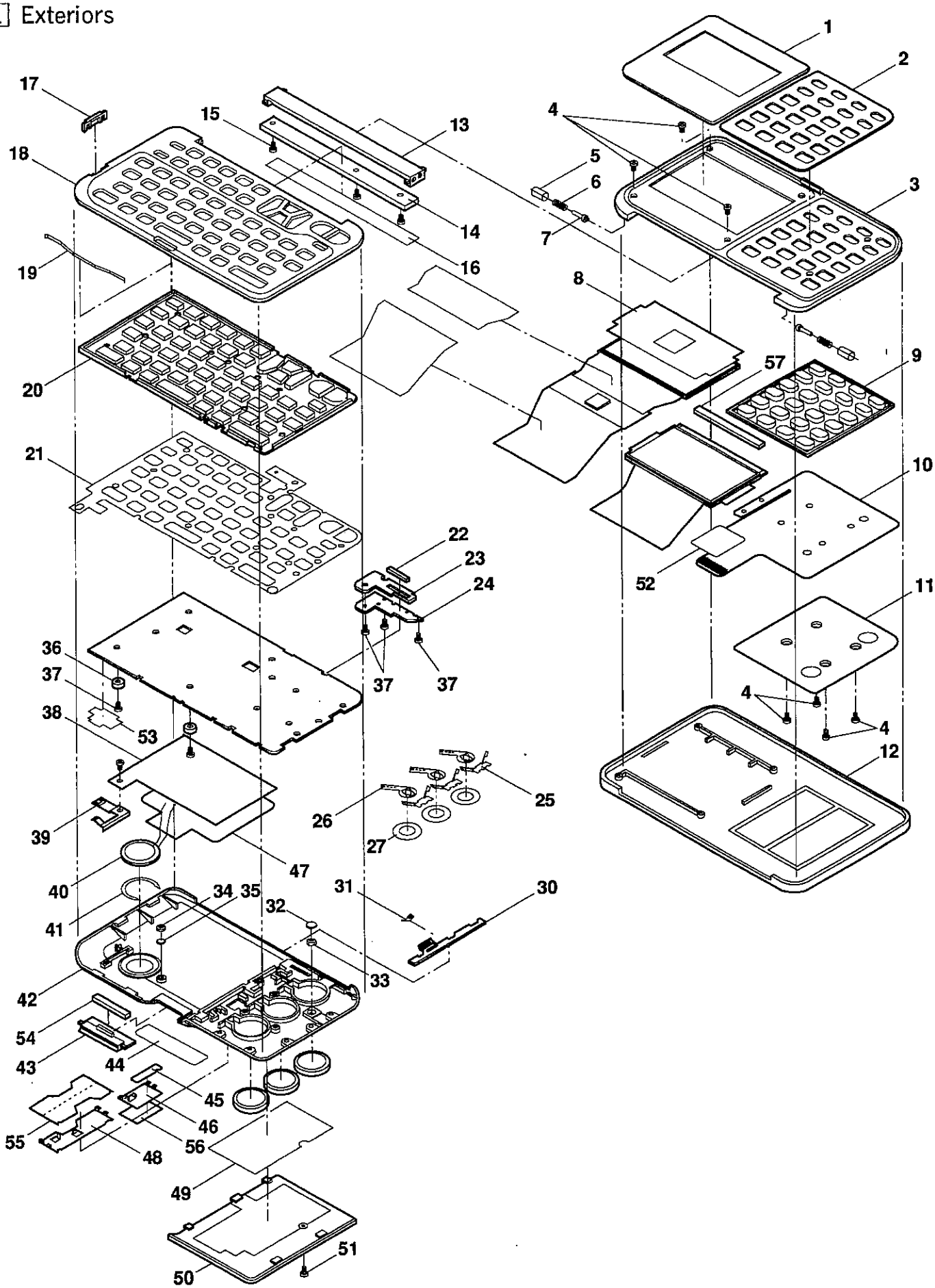


19. Parts guide

1 Exteriors

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	0JK0300150 8M/	AT	N	C	Display overlay	[ZQ-3000]
	0JK0300150 4M/	AT	N	C	Display overlay	[ZQ-3050]
	0JK0300160 0M/	AT	N	C	Display overlay	[ZQ-3200]
	0JK0300160 1M/	AT	N	C	Display overlay	[ZQ-3250]
2	0JK0300140 1M/	AQ	N	C	Key overlay	
3	0JK0400860 4M/	AM	N	D	Display top cabinet	
4	0JK0D000100 M/	AC	N	C	Screw A	
5	0JK0600100 4M/	AB	N	C	Hose	
6	0JK0200040 2M/	AB	N	C	Spring A	
7	0JK0400880 0M/	AD	N	C	Hinge pin	
8	0JK0200050 5M/	AG	N	C	LCD sheet	
9	0JK0400870 2M/	AS	N	C	Rubber key A	
10	0JK0100020 1M/	AU	N	C	Key sheet	
11	0JK0200050 9M/	AK	N	C	Alum sheet	
12	0JK0400920 5M/	AT	N	D	Display bottom cabinet	[ZQ-3000/3050]
	0JK0400870 0M/	AT	N	D	Display bottom cabinet	[ZQ-3200/3250]
13	0JK0400880 1M/	AG	N	C	Hinge A	
14	0JK0400880 7M/	AG	N	C	Hinge B	
15	0JK0D000103 M/	AD	N	C	Screw D	
16	0JK0600220 3M/	AG	N	C	Hinge overlay	[ZQ-3000]
	0JK0600220 9M/	AG	N	C	Hinge overlay	[ZQ-3050]
	0JK0600220 5M/	AG	N	C	Hinge overlay	[ZQ-3200]
	0JK0600220 6M/	AG	N	C	Hinge overlay	[ZQ-3250]
17	0JK0400870 9M/	AD	N	C	4pin cover	
18	0JK0400870 1M/	AU	N	D	Key top cabinet	
19	0JK0200050 6M/	AG	N	C	Knob connector	
20	0JK0400860 8M/	AX	N	C	Rubber key B	
21	0JK0600200 2M/	AU	N	C	ESD sheet	
22	0JK0600200 5M/	AB	N	C	Pressure rubber	
23	0JK0400880 3M/	AN	N	C	Pressure guide	
24	0JK0200060 0M/	AD	N	C	Pressure plate	
25	0JK0200040 4M/	AE	N	C	Battery connect ⊕	
26	0JK0200050 0M/	AF	N	C	Battery connect ⊖	
27	0JK0600200 8M/	AB	N	C	Insulation ring	
30	0JK0400870 5M/	AF	N	C	Switch knob	
31	0JK0211980 5//	AE	N	C	SW connecter	
32	0JK0600010 6M/	AA	N	C	Insulation sheet(Nut)	
33	0JK0200040 6M/	AE	N	C	Nut	
34	0JK0486000 6//	AC	N	C	Reset key	
35	0JK0615310 2//	AE	N	C	Shield(Reset)	
36	0JK0400870 4M/	AB	N	C	Collar	
37	0JK0D000101 M/	AC	N	C	Screw B	
38	0JK0600100 8M/	AF	N	D	Tin foil	
39	0JK0200050 3M/	AE	N	C	Conductor	
40	0JK0K000006 M/	AP	N	B	Buzzer	
41	0JK0615360 2//	AH	N	D	Buzzer tape	
42	0JK0400870 7M/	AS	N	D	Key bottom cabinet	
43	0JK0400870 6M/	AE	N	C	Push knob	
44	0JK0501340 9M/	AB	N	D	Battery exchange day label	
45	0JK0600200 3M/	AC	N	C	Shield D	
46	0JK0200050 1M/	AF	N	C	Battery protect A	
47	0JK0600240 0M/	AQ	N	C	Insulation sheet	[for ESD]
48	0JK0200050 7M/	AG	N	C	Battery protect B	
49	0JK0501540 0M/	AE	N	D	Battery exchange label	
50	0JK0400870 3M/	AH	N	C	Battery door	
51	0JK0D000004 M/	AC	N	C	Screw C	
52	0JK0600200 7M/	AF	N	C	Shield C	
53	0JK0600230 0M/	AB	N	C	Insulation sheet (4pin)	
54	0JK0600240 9M/	AC	N	C	Cushion spacer	
55	0JK0501340 3M/	AD	N	D	Battery label	
56	0JK0501530 4M/	AC	N	D	Caution label	
57	0JK0600230 6M/	AC	N	C	Spacer	[for LCD]

1 Exteriors



CCP00009

2 Packing material & Accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
	0JK0501470.0M/	AX	N	D	Instruction book B [ZQ-3000/3200]
	0JK0501470.1M/	AX	N	D	Instruction book C [ZQ-3000/3200 : Canada]
1	0JK0501460.5M/	AX	N	D	Instruction book D [ZQ-3050/3250 : U.Kingdom]
	0JK0501460.1M/	AX	N	D	Instruction book E [ZQ-3050/3250 : Germany]
	0JK0501580.2M/	AX	N	D	Instruction book F [ZQ-3050/3250 : Netherland]
	0JK0501460.4M/	AP	N	D	Packing case [ZQ-3000 : other countries]
	0JK0501470.2M/	AP	N	D	Packing case [ZQ-3000 : Canada]
2	0JK0501460.0M/	AP	N	D	Packing case [ZQ-3050]
	0JK0501480.0M/	AP	N	D	Packing case [ZQ-3200 : other countries]
	0JK0501480.4M/	AP	N	D	Packing case [ZQ-3200 : Canada]
	0JK0501480.6M/	AP	N	D	Packing case [ZQ-3250]
3	SPAK-137CCCZZ	AC		D	Vinyl bag
4	0JK0504WE17//	AW	N	D	Packing cushion
5	TCADZ1005PCZZ	AC		D	Available list [ZQ-3000/3200 : Canada]

CAUTION FOR BATTERY REPLACEMENT

(Danish) ADVARSEL !
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren.

(English) Caution !
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

(Finnish) VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

(French) ATTENTION
Il y a danger d'explosion s' il y a remplacement incorrect
de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type recommandé par le constructeur.
Mettre au rébut les batteries usagées conformément aux
instructions du fabricant.

(Swedish) VARNING
Explosionsfare vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

SHARP

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